AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of treating a subject suffering from pain comprising the step of administering to the subject an effective amount of a lactoferrin composition to provide an improvement in pain in the subject, wherein the pain is associated with recovery from surgery and wherein any N-terminal lactoferrin variant in the lactoferrin composition has a deletion, substitution, or combination thereof, of from 1 to 16 N-terminal amino acid residues and the N-terminal lactoferrin variant retains the same biological function as full length lactoferrin.

2. (Canceled)

3. (Original) The method of claim 1 wherein said lactoferrin composition reduces the severity of the patient's pain.

4. (Original) The method of claim 1, wherein said lactoferrin composition is dispersed in a pharmaceutically acceptable carrier.

5. (Original) The method of claim 1, wherein said lactoferrin is mammalian lactoferrin.

6. (Previously presented) The method of claim 5, wherein said lactoferrin is human lactoferrin or bovine lactoferrin.

7. (Original) The method of claim 1, wherein said lactoferrin is recombinant lactoferrin.

8. (Currently amended) A method of treating a subject suffering from pain comprising the step of administering to the subject an effective amount of a lactoferrin composition to provide an improvement in pain in the subject, wherein the pain is associated with cancer or recovery from surgery, wherein said lactoferrin composition comprises an N-terminal lactoferrin variant with a deletion, substitution, or combination thereof, of from 1 to 16 N-terminal amino acid residues and the N-terminal lactoferrin variant retains the same biological function as full length lactoferrin.

9. (Original) The method of claim 8, wherein the N-terminal lactoferrin variant lacks at least the N-terminal glycine residue.

10. (Previously Presented) The method of claim 9, wherein said N-terminal lactoferrin variant comprises at least 1% to at least 50% w/w of the lactoferrin composition.

11. (Currently amended) The method of claim 1, wherein said lactoferrin composition is administered orally.

12. (Currently amended) The method of claim 1, wherein said lactoferrin composition is administered parenterally.

13. (Currently amended) The method of claim 1, wherein said lactoferrin composition is administered topically.

14. (Original) The method of claim 11 further comprising administering an antacid in conjunction with said lactoferrin composition.

15. (Currently amended) The method of claim 11 further comprising administering the lactoferrin composition in a delayed release formulation.

16. (Currently amended) The method of claim 15, wherein the lactoferrin composition is adapted for release ~~occurs~~ in the small intestine.

17. (Currently amended) The method of claim 15, wherein the lactoferrin composition is adapted for release ~~occurs~~ in the large intestine.

18. (Currently amended) The method of claim 1, wherein the amount of the composition that is administered [[is]] comprises about 1 ng to about 100 g of lactoferrin per day.

19. (Currently amended) The method of claim 1, wherein the amount of the composition that is administered [[is]] comprises about 0.1 g to about 10 g of lactoferrin per day.

20. (Original) The method of claim 1, wherein said lactoferrin composition reduces the production or activity of pro-inflammatory cytokines.

21. (Previously Presented) The method of claim 1, wherein said lactoferrin composition enhances the production or activity of cytokines that enhance an immune response.

22. (Previously Presented) The method of claim 20, wherein the cytokine is TNF-α.

Claims 23-34 (canceled)

35. (Currently amended) A method of treating a subject suffering from pain comprising the step of administering to the subject an effective amount of a lactoferrin composition consisting essentially of an N-terminal variant to provide an improvement in pain in the subject, wherein the pain is associated with cancer, disorders of the central nervous system or recovery from surgery, wherein the N-terminal lactoferrin variant in the lactoferrin composition has a deletion, substitution, or combination thereof, of from 1 to 16 N-terminal amino acid residues and the N-terminal lactoferrin variant retains the same biological function as full length lactoferrin

36. (Previously Presented) The method of claim 35, wherein the N-terminal variant lacks at least the N-terminal glycine residue.

37. (Previously Presented) The method of claim 36, wherein the N-terminal variant comprises at least 1% to at least 50% w/w of the lactoferrin composition.

Claims 38-53 (Canceled)